



RCA-1A6

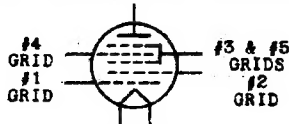
PENTAGRID CONVERTER

1A6

Filament	Coated	
Voltage	2.0	d-c volts
Current	0.060	amp.

Direct Interelectrode Capacitances (approx.):

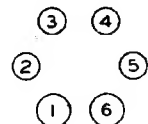
C_{g4p}		0.25 ^⓪	μf
C_{g4g2}		0.2 ^⓪	μf
C_{g4g1}		0.1 ^⓪	μf
C_{g1g2}		0.8	μf
$C_{g4(k+g1+g2+g3+g5+p)}$	= R-F Input	10.5	μf
$C_{g2(k+g1+g3+g4+g5+p)}$	= Osc. Output	6	μf
$C_{g1(k+g2+g3+g4+g5+p)}$	= Osc. Input	5	μf
$C_{p(k+g1+g2+g3+g4+g5)}$	= Mixer Output	9	μf



Overall Length
Maximum Diameter
Bulb
Cap
Base

1-9/32" to 4-17/32"
1-9/16"
ST-12
Small Metal
Small 6-Pin

Pin 1-Filament+
Pin 2-Plate
Pin 3-Grid #2
Pin 4-Grid #1



Pin 5-Grids #3 & #5
Pin 6-Filament-
Cap -Grid #4

BOTTOM VIEW

CONVERTER SERVICE

Plate Voltage	180 max.	volts
Screen (Grids #3 & #5) Voltage	67.5 max.	volts
Anode-Grid (Grid #2) Voltage	135 max.	volts
Anode-Grid Voltage Supply*	180 max.	volts
Control-Grid (Grid #4) Voltage	-3 min.	volts
Total Cathode Current	9 max.	ma.

Typical Operation:

Filament	2.0	2.0	d-c volts
Plate	135	180	volts
Screen	67.5	67.5	volts
Anode-Grid	135	135	volts
Anode-Grid Supply	135	180*	volts
Control-Grid	-3	-3	volts
Oscillator-Grid (Grid #4) Res.	50000	50000	ohms
Plate Resistance	0.4	0.5	megohm
Conversion Cond.	275	300	μmhos
Conversion Cond. at -22.5 volts on Grid #4	4	4	μmhos
Plate Current	1.2	1.3	ma.
Screen Current	2.5	2.4	ma.
Anode-Grid Current	2.3	2.3	ma.
Oscillator-Grid Cur.	0.2	0.2	ma.
Total Cathode Current	6.2	6.2	ma.

* Applied through a 20000-ohm voltage-dropping resistor, by-passed by 0.1 μf condenser

The mutual conductance of the oscillator portion (not oscillating) of the 1A6 is 425 micromhos under the following conditions: plate voltage, 135 to 180 volts; screen voltage, 67.5 volts; anode-grid voltage (no voltage-dropping resistor), 135 volts; and oscillator-grid voltage, 0 volts. Under these same conditions, the anode-grid current is 2.3 milliamperes.

⓪ With shield-can.
← Indicates a change

APRIL 5, 1937

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

DATA

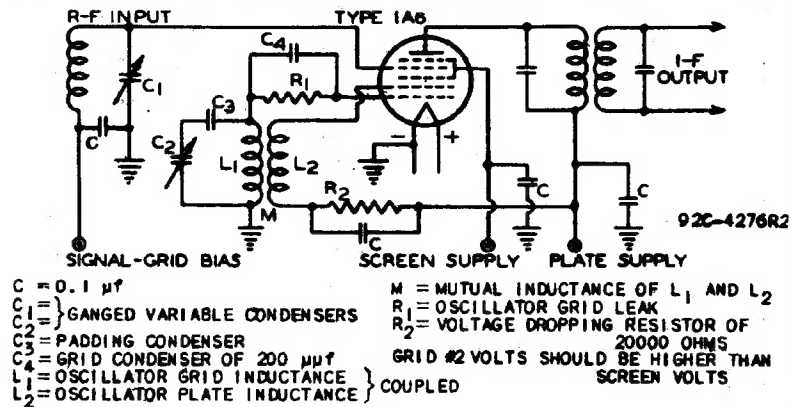
1A6



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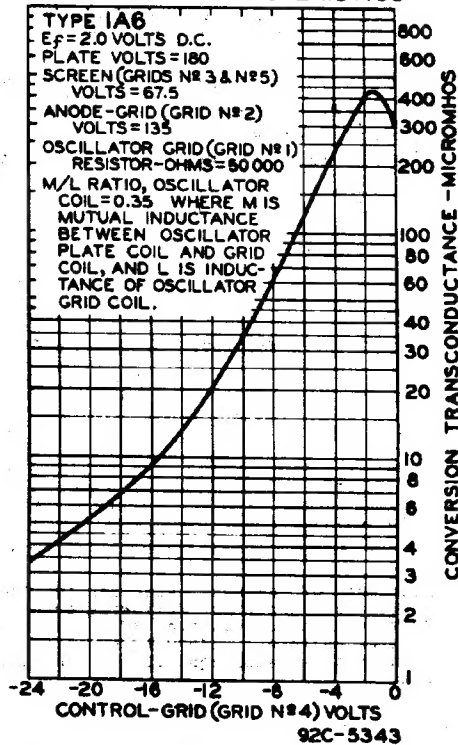
PENTAGRID CONVERTER

TYPICAL PENTAGRID CONVERTER CIRCUIT



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OPERATION CHARACTERISTICS



APRIL 5, 1997

 RCA RADIOTRON DIVISION
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DATA